
INdigital telecom initial comments in FCC PS 11-153

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of)	
)	
Facilitating the Deployment of Text-to-911 and)	PS Docket No. 11-153
Other Next Generation 911 Applications)	
)	
Framework for Next Generation 911)	PS Docket No. 10-255
Deployment)	
)	
)	

INITIAL COMMENTS of INdigital telecom

INdigital telecom
5312 West Washington Center Road
Fort Wayne, IN 46818

(260) 469-2010
(260) 469-4329 (fax)

info@indigital.net

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A. Facilitating interim non-voice to 9-1-1 services

1. Creating a policy environment favorable for emerging technologies

Ensuring service parity levels for non-voice 9-1-1 communication with legacy 9-1-1 voice service

2). In the *Notice of Inquiry* and in the NPRM, the FCC distinguished between use of “primary” and “secondary” media types to communicate with PSAPs.¹ Neither the NOI nor this NPRM correctly identifies the need for parity in the initial call setup characteristics for wireless or VoIP E9-1-1.

These non-legacy types of calls, which are the primary focus and drivers of the need for NG9-1-1, are not equal to legacy wireline E9-1-1 services. The initial call information is a critical component that must be made available to the PSAP. In a legacy wireline E9-1-1 call, the call back number of the public caller is present in the network signaling used for the initial setup of the call.

3). Even if the call is of such short duration that no intelligible primary media information is present, a unique identifier is available to the PSAP - the calling party number or subscriber line ID. Wireless E9-1-1 and some VoIP E9-1-1 services used by the public today do not provide a comparable level service. Neither the caller’s handset serial number or call back number is made available in the initial presentation of the 9-1-1 call to the local 9-1-1 authority (the PSAP), resulting in a lack of parity with a key characteristic of legacy wireline E9-1-1 service.

4). It is technically possible for the originating 9-1-1 service providers’ network (and the networks of their third party location providers) to forward the unique identification number of the public caller to the 9-1-1 system service provider. It could be argued that failing to forward this information violates existing FCC regulations, but industry practice has evolved in the absence of a requirement for comparable parity of service.

5). The current protocols used by the originating 9-1-1 service providers and their third

¹ See *Notice of Inquiry*, 25 FCC Rcd at 17883 ¶¶ 39-40.

party location (or E9-1-1 gateway providers) do not provide this critical identifier. Using a common E9-1-1 protocol – N-CAS (non Channel Associated Signaling) - an SS7 enabled signaling method, the unique identifier isn't available until after the call is answered and a query is sent to the third party provider.

6). This post-initial-state-query must be originated by either by the PSAP operator or an automatic call distribution (ACD) system (a part of the PSAP CPE.) As the percentage of non-wireline 9-1-1 calls continue to increase, it will become even more critical for PSAPs to receive the unique identifier of the public caller in the setup of the emergency call.

7). While NG9-1-1 holds out the promise of improving this deficiency, many E9-1-1 systems today can support initial call identification of the public 9-1-1 caller.

Regardless of the outcome of this NPRM or other proceedings, the FCC needs to take action to ensure that to the extent technically feasible, there is a unique identifier available to the PSAP for every type of primary and secondary media transaction originated by the public to a PSAP.

8). Failing to require full parity of the primary information that can be conveyed from the public caller to the PSAP will erode the value of any secondary media that may be present. There are many types of possible solutions to convey secondary media information to the PSAP, but much of the value of secondary media is diminished significantly if there is no initial primary media information to identify the calling party.

9). Not all originating 9-1-1 providers, 9-1-1 system service providers, or 9-1-1 local authorities have equipment and systems that can support initial media parity for all types of public initiated 9-1-1 calls. However, with the widespread deployment of SS7 and emerging IP technologies, many industry providers have these capabilities today.

10). **Summary** - The lack of a regulatory mandate to provide call parity has allowed today's existing E9-1-1 technology to be dormant and underdeveloped. As the industry transitions from E9-1-1 to NG9-1-1, it is critical that this crucial information be provided wherever it is practical. This is a critical requirement for action by the FCC, and will encourage and provide guidance to the industry to improve service in many areas of our nation prior to the full end state implementation of NG9-1-1.

11). In addition, the establishment of a requirement for 9-1-1 call parity will provide guidance to improve the deployment of NG9-1-1 technology standards beyond the current goals of this proceeding. The initial delivery of the public caller will enable test calls, allow single handset routing in highly critical situations and provide many other benefits beyond the limited scope of this initial set of comments.

B. Public policy issues that require action

- 1). Addressing 9-1-1 system service provider liability issues for non-voice communication - As identified in the comments of NENA and many others in this and other proceedings and workgroups, federal and outdated state regulations are hampering the deployment of NG9-1-1 networks and non-voice emergency services.
- 2). There is an inadequate limitation of liability for non-voice primary media in the “[m]any existing laws, regulations and tariffs” that focus on legacy technologies or “system capabilities which may inadvertently inhibit the migration to NG9-1-1.”²
- 3). We are unaware of any state statutes that adequately address liability issues associated with accepting, processing or delivery of primary non-voice media or non-voice as a secondary media. Several States’ comments in this docket identified existing regulations that may hinder the deployment of NG9-1-1 networks.
- 4). We agree with the suggestion of the Ohio PUC, supporting “a dual state-federal regulatory framework for NG9-1-1 in which the FCC establishes broad, national objectives, standards and benchmarks, but leaves coordinating the implementation and transition to the states.”³
- 5). As a 9-1-1 system service provider, we are concerned that without an “overhaul of the 911 regulatory environments... [t]o promote competition⁴..and advance the industry” as set out in the L.R. Kimball comments, there will be no meaningful progress.

The marketplace reality is that inadequate liability protection will prevent 9-1-1 System

² *Id.* at 28.

³ Ohio PUC Comments at 13.

⁴ *Id.*

Service Providers (SSPs) from bringing innovation and deployment of the new types of services into the public safety market beyond small isolated and tightly controlled tests.

6). Additionally, and speaking from our own experience, it is clear that to facilitate a transitional E9-1-1 or NG9-1-1 deployment, interconnection arrangements must include 9-1-1 services.

7). The Commission must affirm the intent of Congress that 9-1-1 is a telephone service under the various acts.

Individual states would then be capable of taking action under the broader federal initiative. We restate our preference for the approach proposed by the Ohio PUC – which will serve to encourage the modernization of state and local regulatory regimes that are currently barriers to NG9-1-1.

8). The NPRM recognizes the primary basis for liability protection related to the provisioning of NG9-1-1 services is contained in section 201 of the New and Emerging Technologies 911 Improvement Act (Net 911 Act).⁵

This section has a very ambiguous definition. Our observation is that this language does not specifically include the concept of a secondary media component.

9). The FCC will need to affirm the intent of congress to include primary and secondary non-voice media, thereby providing guidance to state regulators so that this issue can be resolved.

10). Summary - The Commission will need to affirm the intent of Congress with regard to categorizing 9-1-1 as a telephone service subject to interconnection agreements and further, to classify non-voice 9-1-1 services as the functional equivalent and supplemental data to E9-1-1 service. These actions are needed before transitional E9-1-1 or NG9-1-1 can fully enter the marketplace.

⁵ See 47 U.S.C. § 615a.

C. Providing initial and ongoing funding for non-voice to 9-1-1 services

1). Funding for 9-1-1 in many states has consisted of a surcharge on legacy landline service, and in many jurisdictions a separate surcharge for non-legacy service categories (wireless, VoIP). Therefore, the overall decline in the number of subscribers and legacy wireline surcharges has impacted each state differently.

2). Over the past 36 months, many funding alternatives for 9-1-1 have been proposed within the 9-1-1 industry. The only clear consensus is that each state will choose to fund non-voice and NG9-1-1 services as appropriate, and within the tolerance of the electorate.

3). With regard to non-voice service to meet individual disability needs, many states funded TTY based telephone relay service (TRS) using a separate surcharge, predominately on legacy landline service.

4). A funding mechanism to jump start non-voice access to 9-1-1 could be to enable a non-voice surcharge element on all telecom services. This would provide interim funding for operations, public education and PSAP training. This funding regime would only need to last until the next wave of technology enters the market place.

5). We have seen this funding model work in the states for both the initial TTY TRS and the later emerging caption-tel types of services. Although not intended as transitional, the current TRS regime has exhibited downward trends in both the surcharge amounts and total conversation minutes (demand.)

What emerged to replace demand for TRS relay and captioned local calling was the broad popularity of alternative methods of non-voice communication.

6). It would be reasonable to expect to see that pattern be repeated again, where there is a temporary need for intermediation of non-voice thru a relay center, or the transitional funding of enhancements to E9-1-1 until the widespread deployment of NOVES and NG9-1-1, which would then bring about a reduction in demand as more direct and efficient methods of communication emerge over time.

7). Additionally, many states already have boards and commissions currently in place

that administer these types of end user surcharges. An expansion the state's TRS scope of operations to include non-voice 9-1-1 emergency services would be efficient. In addition, it would be in the appropriate political jurisdiction, since nearly all (non-voice) 9-1-1 calls are local in nature.

8). **Summary** – By enabling the use of a TRS model funding regime, each state then has the latitude to address the introduction of non-voice service at the state/local level. This allows the funding to be sized as appropriate to meet the needs of those with individual disabilities, or for non-voice to be available to the general public as appropriate for local conditions and political environment, but within the guidelines of federal policy.

**D. Public education and public safety industry training requirements
for interim and NG9-1-1 non-voice services**

1). In many areas, there has been a significant amount of innovation and product development that precedes this NPRM. All of the current trials and deployments that have entered the market are limited in geographic scope. To address the liability issues, many of these types of service platforms have been architected to rely on liability limitation thru an end user license agreement (EULA).

2). These types of services are frequently positioned as a 'post voice' E9-1-1 primary media service - in an attempt to receive some limitation of liability by positioning the non-voice media as secondary in nature to the primary 9-1-1 call. Despite the liability warnings⁶ in the NPRM, the public has been generally informed and successfully used many of the 'post-call' non-voice platforms that use pre-enrollment and location based wireless carrier (LBS) services.

3). Conversion from E9-1-1 to NG9-1-1 is more likely to parallel the conversion by the public from AM to FM radio or from black and white to color television - to the extent that these transitions are analogous to a conversion. It is difficult to envision a wholesale change occurring by a date certain as cited in the digital TV example of the NPRM.

⁶ *Id.* at 105.

4). Based on the popularity, media coverage and rapid growth of these 'post-call' solutions, we conclude that a sub-set of the public at large - with needs that are currently not being met by E9-1-1 service - are the most likely to become the early adopters of non-voice communication as their secondary media.

5). Using this scenario as a guideline, the educational outreach can be targeted directly to the public sector that has the unmet need, in much the same way as the original legacy TRS service was targeted. This minimizes public confusion and prevents unmet expectations. This requires the creation of a suitable public policy environment containing these essential criteria:

- statutory and regulatory limitations of liability for non-voice services
- availability of non-voice service supporting the public, the 911 SSP, and the PSAP thru the appropriate technologies required for each sector
- incentive for the adoption and use of non-voice technologies by the 9-1-1 local authority
- adequate initial and sustaining funding for non-voice services within the public safety environment

When these conditions all exist at the same time, then public education is the last remaining and arguably the smallest barrier to the general availability of non-voice communications.

8). It would seem reasonable to conclude that a suitable public education program could be developed and put in place, in much the same way that states have created statutes that require the public availability of Automatic External Defibrillators (AED's).

This is an example of how technology has emerged to meet the public need. Statutes and public law have established training requirements for caregivers who use AEDs, as well as provided Good Samaritan laws that provide liability protection for others. In this way, either the trained medical provider or the untrained layperson can provide aid using the same device. There are a number

of similarities to the transitional deployment of non-voice emergency communications to 9-1-1.

9). If we study the parallels from this use case (the AED) to the lagging deployment of non-voice emergency services within the 9-1-1 sector, we find that many states have AED requirements and public law in place, and others do not.

In this docket, the Commission should consider that progress toward the migration of E9-1-1 to NG9-1-1 will not happen all-at-once, but will require an initial regulatory framework that does not hinder early adopters. Just as AED's are not mandated in all states, they have become generally available in a short period of time (note that SMS text is a much older technology than the AED.)

10). Personally Identifiable Information - An additional concern in the rulemaking proceeding is for the balance between personally identifiable information and its use by the local 9-1-1 authority. The public may have expectations that cannot be met unless the use of PII is made very clear in this proceeding and in subsequent 9-1-1 statutes adopted by the states.

11). One concern is how the Commission will require that the public safety industry will comply with CPNI protocols and procedures. The Commission will need to provide an accommodation for the effective use of such data by the 9-1-1 local authority in rendering service.

It would be inappropriate public policy for a 9-1-1 call taker to need to ask for a (CPNI rules required) PIN number to access the PII of the public caller before assistance could be provided.

13). **Summary** – Adequate liability limitation and a regulatory framework that enables PII to be used by the public safety industry are key requirements for the evolution from E9-1-1 to NG9-1-1. Additionally, an effective public education program will require that a reasonable accommodation of the Commission's existing privacy requirements be a part of this proceeding.

E. Facilitating the transition from E9-1-1 and interim**non-voice to NG9-1-1 services**

1). Since 2006, INdigital has had a number of development projects for non-voice, pre NG9-1-1 transitional based service platforms. The goal of this development work was to enable non-voice service prior to the final end state of NG9-1-1, where non-voice is integrated into the handset and the OSP's network.

As well stated in the NPRM and dozens of industry reports, TTY is the only FCC adopted method of non-voice communication with the local 9-1-1 authority. This guided our initial work, and we focused extensively on the use of legacy TTY as the preferred protocol to interface with the local 9-1-1 authority. The end result of this work was the development of our texTTY service platform. In that development work, we identified a significant barrier with the use of TTY as an interface method to the PSAP.

2). The FCC has ordered an operating standard for not more than a 1% total character error rate (TCER) for TTY communications. This technical requirement was adopted in a time period where cellular technology was much closer to analog than today's 3G networks, and where the connection to local 9-1-1 authorities was also analog, typically using CAMA signaling, and often using legacy TDM digital protocols.

3). The reality today is that all wireless handsets use advanced digital service, and the concept of a public safety network today is the Internet Protocol based ESinet. These two points are salient because many disaster plans and industry practices use 3G / 4G cellular data service to extend the ESinet for disaster recovery or emergency operations.

By design, TTY is a simplex (one way at a time) service. Real world intermediation using the TTY protocol with a 1% total character error rate (the current Commission requirement) imposes a technical requirement that is nearly impossible to meet.

4). For this reason, a more reasonable standard in the TCER requirement of 5% TCER would allow local 9-1-1 authorities to be able to use their existing legacy TTY equipment for non-voice communication on a transitional basis until network modernization occurs.

5). The requirement of 1% TCER is also financially limiting handset manufacturers from using their limited development resources on more advanced non-voice protocols. There is simply too much energy and resources focused on the obsolete and unused TTY protocol.

6). As an additional point of discussion, the current non-voice TTY régime uses a portable TTY connected to the 2.5mm ear jack of a portable device. This is a wholly unrealistic standard. Very few handsets on the market today use a 3 conductor 2.5mm jack.

Most handsets today use a 3.5mm 4 conductor jack, and there is limited availability of the proper adapter to support a portable TTY. While handset manufacturers continue certification testing to ensure compliance with the concept of mobile TTY service, the lack of the proper 3.5mm to 2.5mm adapter jack presents yet another a significant barrier to TTY use.

7). **Summary** - This serves to further highlight the bureaucratic quagmire for those with individual disabilities. A performance requirement that forces the use of a legacy protocol has been fully superseded by today's wireless networks, and requires a connection arrangement (the 2.5mm 3 conductor jack) that is all but extinct in the marketplace. The Commission should take action in this proceeding that will enable new technology to enter the marketplace.

F). Transitioning to non-voice primary and secondary media in a pre-NG9-1-1 environment

1). There is very little data available to assess the benefits or cost of non-voice communication from the public to local 9-1-1 authority. Field trials and pre-production deployments such as the Black Hawk, Iowa implementation have a

limited scope. The Charlotte, North Carolina project has produced very little public to 9-1-1 authority communication beyond testing.

2). Beyond these trials, and largely unknown outside the industry, there is a even more complex technical requirement imposed by the Commission, held over from the days of analog cellular service ⁷

3). This requirement has resulted in some wireless carriers and their technology vendors implementing ‘emergency service’ mode, which prevents any type of primary or secondary media and any other handset service (such as SMS or other existing non-voice services) from being used during a 9-1-1 voice call.

4.) The reality is that ‘emergency mode’ as mandated by the Commission is a significant and almost insurmountable barrier to the market entry of many types of non-voice secondary media services.

5). **Summary** – The Commission should eliminate legacy analog mode operating characteristics that are barriers to progress and are preventing the entry of new services into the marketplace.

G).The Indiana PSAP to public non-voice trial

1). Given many of the limitations itemized in these initial comments, we are now focusing our effort on the deployment of our non-voice service platform (texTTY series II) that will provide non-voice service on a post-voice call basis. Until more substantive policy is issued in a Commission order, we are focusing on non-voice communication **from** the 9-1-1 local authority **to** the public 9-1-1 caller.

2). We conclude that the current Indiana statute provides an adequate limitation of liability to extend the initial voice call to a supplemental non-voice communications channel. The timing of the NPRM and the launch of the service prevent us from including usage statistics and other information in the initial

⁷ FCC 99096 2nd Rpt & Order – “strongest signal - emergency mode requirement”

comment cycle, but it is our intent to make as much detail available as possible within the constraints of CPNI regulations.

3). Some of the information and operating data we hope to gather and publish from the non-voice service platform are:

- What is the ratio of non-voice to voice 9-1-1 calls within an established large scale network?
- What is the average length of time for a non-voice communications session?
- Is the use of abbreviations and acronyms a barrier to effective emergency communication?
- Do wireless carrier SMS service platforms provide message processing that is fast and reliable enough to support a 9-1-1 emergency call?

4). One benefit of an initial deployment in a local 9-1-1 authority-to-public mode is that there is a limited public education requirement. We will be using industry standard text notifications at the start of the non-voice session to allow the public caller to opt out of the non-voice session.

5). Any Indiana PSAP that participates will have access to the non-voice platform thru the statewide ESinet. A variety of different types of call taker non-voice (text) terminals are available to meet local policies and capabilities.

For incoming 9-1-1 calls that have no voice present, the PSAP will have the option of using a non-voice 'call back' using SMS text. For voice calls where the public caller requests non-voice, participating PSAPs can immediately convert the voice call to a non-voice SMS communications channel.

6). Even with the well known limitations of SMS, a service platform of this type will begin to meet the public need by allowing the PSAP to utilize non-voice secondary media.

7). **Summary** - It is our goal to publish the results of our non-voice service

platform as used by Indiana PSAPS, which will provide data of how non-voice 9-

1-1 platforms are used by public safety and the public. We are forecasting the availability of data for this large scale trial within the reply cycle of this docket.

H). Expected Benefits of Availability of NG9-1-1

Text and Multimedia Applications

1). Despite the wide breadth of services and features that modern wireless devices support, the presence of outdated public policy (as noted in F. 4. above) is a significant barrier to advanced non-voice services as 'helpers' to legacy voice E9-1-1 service, and may further be a barrier to NG9-1-1 services in the future.

Many handsets have the capability to support the simultaneous support other related primary and secondary methods of communication while a voice E9-1-1 call is active.

2). **Summary** - The FCC needs to take swift action to withdraw the outdated regulatory barriers that are inhibiting the deployment of non-voice services. The expected benefits of transitional E9-1-1 non-voice and future NG9-1-1 will be needlessly hindered unless Commission action is taken in these matters.

I). Application based real time text (RTT)

1). Much has been published and submitted by the industry with regard to the limitations of SMS. We do not intend to dwell on this issue in our comments. We are proposing to move beyond SMS as an existing non-voice primary media service. Many of the current Smartphone handsets have extensive technical capabilities that can support a real time text (RTT) client application.

2). Our view is that a user downloadable application is an acceptable transition method from E9-1-1 to NG9-1-1, and would bring the industry closer to the end state goal of total conversation where RTT and voice and secondary media (images, video) all take place simultaneously.

3). NOVES and other LTE concepts have many of these features at the core of the NENA i3 standards design. As we see in the mobile device space today, the IP

data channel has already enabled over the top (OTT) alternatives⁸ to legacy provider service offerings such as SMS, MMS and other non-voice protocols. A mobile device application would offer many of the same features that are highly desirable for non-voice pre NG9-1-1 services as described in this NPRM.

4). Despite the concern of others that an interim step such as an OTT application will delay the deployment of NG9-1-1, our view is that an OTT RTT 9-1-1 user application is an ideal transitional non-voice communication method until the functions of the application can be incorporated into the mobile device's operating system.

5). While the detailed function of such an RTT application and supporting network is beyond the scope of these comments, INdigital has designed and demonstrated a number of OTT RTT 9-1-1 applications and the supporting NG/E9-1-1 SSP network that can:

- Embed and convey device location, direction and speed of travel in the RTT primary media stream.
- Allow the public caller to send audio, pictures or video clips from within the application directly to the PSAP.
- Provide the PSAP with a permissions based policy architecture to accept secondary media on a call-taker by call-taker basis as needed.

6). These services are possible in an OTT environment without any changes to the originating service provider's networks. As desirable as these features seem, our review indicates that just this short list of characteristics violate existing 9-1-1 statutes in several states.

7). Looking beyond this barrier, progressive states can enact more contemporary legislation that will allow advanced non-voice services to be deployed and meet

⁸ <http://www.apple.com/ios/features.html#imessage> retrieved 1-Dec, 2011

the public need. That public policy goal needs to be established and initiated by the Commission.

8). **Summary** - The role of the Commission in this proceeding should be to create an environment that fosters innovation at the local and state level.

This means that some states are going to have a more advanced set of public safety services available than others on a temporary basis until a critical mass is reached thru marketplace demand. In the current environment, it is difficult for individual states take independent action to foster the introduction of new 9-1-1 services.

J). Standards Development for NG9-1-1 Applications

1). The industry relies on NENA to create and publish industry standards that ensure public safety. Our company fully supports the NENA initiatives in the standards development process.

2). We note that NENA's work focuses on the end state of NG9-1-1. In this NPRM, there are questions about interim non-voice service. In this regard, we have not seen the initiatives from NENA to address transition issues. Partly, this is an inherent limitation of the structure of NENA, which relies largely on volunteer committee members to accomplish the association's work.

3). **Summary** - In our view, NENA should be encouraged to promote the adoption of interim and transitional approaches, and not focus exclusively on end-state NG9-1-1. This can most effectively be accomplished by establishing public policy at the Commission that enables transitional E9-1-1 services as well as end state NG9-1-1.

K). Transitional Approaches using SMS with IP based Real-Time Text

1). In our development efforts, we have studied the industry's position on the use of SMS extensively. We note that despite all of the reports that point out the shortcomings of SMS, no report has provided a usability statistic, or published the percentage of SMS messages that fail.

2). The FCC's network outage reporting system does not require SMS outages to be submitted by the wireless carriers. Based on our own observations and testing in a development environment, we have concluded that the number of SMS failures have similar characteristics to the failure of voice services.

3). Part of our design of the texTTY non-voice service platform that is beginning platform sends 'heartbeat' SMS messages between the active transponder nodes of the network to measure the overall availability of the OSPs (originating service provider) SMS (short message service) platforms. It is our intent to make these characteristics known in our reports to the Indiana Wireless E9-1-1 Advisory Board, and therefore publicly available.

4). Additionally, in architecting our RTT platform, we note that overall reliability of the OSP's IP networks (particularly the IP link from the tower to the handset) can and does occasionally have service interruptions.

Based on our testing during these times of network impairment, the store and forward protocols of SMS are a suitable 'backup' to RTT, and can allow continued communication with between the PSAP and the public caller until the RTT path using the handset IP path can be reestablished.

5). **Summary** – SMS as a standalone service has limitations that are well documented. At the same time, SMS is widely available, well known to the public and a useful transitional protocol until the arrival of NOVES or other more advanced protocols now under development.

The Commission should encourage innovation and the deployment of non-voice communications service as outlined in this proceeding.

L). Transitional and NG9-1-1 readiness by states or regions

1). Based on the record in this proceeding, it seems clear that the Commission (and perhaps the industry at large) is unaware of the advanced network that exists in Indiana and other states. The state, through the Indiana E9-1-1 Wireless

Advisory Board, has a large scale IP based ESInet that has processed over 12 million wireless 9-1-1 calls using VoIP and NENA i3 compliant technologies.

2). The IN911 network serves 11 wireless OSPs and 137 primary PSAPs, and is connected using IP technology to multiple other 9-1-1 SSPs in our market region. The theoretical nature of many of the questions and open issues in this NPRM are well known to INdigital, and to the many others in other states with advanced networks such as Vermont, Montana and others.

For Indiana, the barrier to a transitional network – or even for a standards based RFAI or NENA i3 environment is not ‘the network’ or PSAP readiness. The barrier is the lack of forward looking public policy at the federal level.

3). It is our hope that this proceeding will not further hinder the development, creation and deployment of transitional and ‘enhanced’ E9-1-1 networks and services.

4). **Summary** - The Commission's highest goal should be to allow those that can the ability and flexibility to move forward with the deployment of NG9-1-1 services where those capabilities exist.

INdigital respectfully requests that the Commission consider these comments in its deliberations on this proposed rulemaking proceeding.

By: /s/ Mark Grady

INdigital telecom
5312 West Washington Center RD
Fort Wayne, IN 46818
(260) 469-2010 (telephone)
(260) 469-4329 (fax)
mgrady (at) indigital (dot) net